

(Boston)

## The Quantum View of the World Transcripts

1) ~~Ideal Book of Physics~~  
1.) Singlet spin state for two spin- $\frac{1}{2}$  particles  
12.) The EPR Argument.  
1a.) 3 meas as observables not in an eigenstate

2. What does measurement do?

2a.) How do these changes brought about

2b.) Locality in the EPR Argument / defn of Locality

2c.) EPR Argument (1935)

2d.) Locality

3.) The Bell Argument

3a.) The Bell Argument

3b.) The Bell Inequality (Statement)

[4.) The Bell Inequality (Proof)]

[5.) QM (a, b), Classical (a, b)]

[6.) Violation of Bell Inequality by QM]

[6a.) The 4 Correlation Coefficients]

6b.) Aspect's Experiment

6c.) The <sup>optical</sup> <sub>light</sub> <sup>single</sup> <sub>source</sub> structure of Aspect's Experiment.

7.) The Slapp - Standard Approach - Locality

8.) PLCD (Statement)

9.) Problem with PLCD in an indeterministic situation

[10) Truth Conditions for  $\phi \rightarrow \psi$ ]

[11) Locality 5

[11a) Is Locality violated in EPR?

[12) Conflict with SA of violating LOC<sub>1/3</sub>

[13) Kochen-Specker Result (+ FUNC)  
~~(+ VR and FUNC)~~

[13a) FUNC contd and Peschlernization  
~~- FUNC~~

[14) Definition of  $\sum A \models_{\{B\}}^\phi$  and  $\sum A \models_{\{B\}}^\phi (c)$

[14a) Definition of  $\sum Q \& I \models_{\{A, B\}}^\phi (P, E)$  Ontological contentivity  
Extraneous contentivity

[15) OLOC and ELOC -  
14b) OLOC in words  
14c) ELOC in words

[16) Redhead-Heywood result.  
 $(\text{Func}^2 + \text{VR} + \text{Func} \text{ solo} \Rightarrow \text{OLOC})$   
 $\text{Defn of VR}$

[17) cVR]

[18) cVR for separated systems]

[19) Incompatibility of cVR and Locality]

[19a) Proof Conf'd - FUNC<sup>\*\*</sup>]

[20) Interaction of Physics and Philosophy

[21) Global Book of Physics